

## WELL SUMMARY

page 1 of 3Location ID: BW-6-355 Field Representative(s): M. CanavanDate Started: 11/15/91 Date Completed: 01/31/92Northing: 234534.58 Easting: 413780.73Brass Cap: 4815.23' Outer Casing: 4816.24' Inner Casing: 4816.34'Drilling Method: Mud/Air Foam Rotary Drilling Contractor: Larjon Drilling Co.Driller: J. GowerTotal Depth Borehole: 401' Total Depth Well Casing: 380.81'Total Depth Surface Casing: 80'Diameter Well Casing: 4" Diameter Surface Casing: 10"Length of Bottom Blank: 5.28'Type of Screen: regular strength 0.02 slotScreen Interval: 355.0' to 375.53'Water First Detected: ≈350' Water Level Open Borehole: 321.21' (01/09/92)Water Level Cased Borehole: 249.78' (02/05/92)Quik-Foam Use: 3.5 gallons

Estimated Water Use: 6,700 gallons

Well Casing:

4in x 3ft SCD 40 PVC:

4in x 5ft SCD 40 PVC:

4in x 10ft SCD 40 PVC:

4in x 20ft SCD 40 PVC:

Total SCD 40 PVC pipe: ft

custom SS centralizers: 1 set

4"x2' SS locking riser:

4" SS locking cap: 1

4" SS female cap: 1

Thread Adaptor: 1

4in x 3ft SCD 5 SS pipe:

4in x 5ft SCD 5 SS pipe: 5

4in x 10ft SCD 5 SS pipe:

4in x 20ft SCD 5 SS pipe: 18

Total SCD 5 SS pipe: 365 ft

4in x 5ft SCD 10 SS pipe:

4in x 10ft SCD 10 SS pipe:

4in x 20ft SCD 10 SS pipe:

Total SCD 10 SS pipe: ft

Well Completion:

100# bags 16/40 sand:	7	bags
100# bags 8/20 sand:	21	bags
100# bags #3 sand:	38	bags
94# bags cement:	90	bags
5 gal. buckets bentonite:		buckets
50# bentonite powder:	10	bags
Benseal:	1	bag

Surface Casing:

94# bags cement:	35	bags
50# bags bentonite powder:	4	bags
Grout:	0	bags

Pertinent Field Notes:

11/11/91 -	Mobilize equipment to site (as time allows). Line pit and under rig with plastic.
11/14/91	Set up to drill. - Menzie
11/15/91	Spud, mix mud using 900 gal. water. Drill mud rotary 0'-26' (for pilot hole). - Canavan
11/18/91	Drill 26'-77' mud rotary with 12¼" milltooth bit (pilot hole). - Canavan
11/25/91	Drill 77'-80' with 12¼" milltooth bit. Ream 0'-40' with 16" reamer. - Canavan
11/26/91	Reamed pilot hole 40'-80' with 16" reamer. - Canavan
11/27/91	Cleaned hole and installed 82' of 10" steel surface casing. - Canavan
12/09/91	Demobilize Frank's rig and mobilize BE rig to site. Get 3,800 gal. water (filled both trucks). - Canavan
12/10/91	Drill 80'-264' air-foam rotary. - Canavan

12/11/91 No drilling. Rain poses unsafe drilling conditions. - Canavan

12/12/91 Drilled 264'-275'. Tophead drive broke down. Down for repairs and holiday until January 6, 1992. - Canavan

01/06/92 Steamclean and mobilize BE rig to BW-6. - Canavan

01/07/92 Drill 275'-365'. Andesite bedrock encountered at 320'. Water encountered at ≈350'. - Canavan

01/08/92 Measured water level at 302.1' (after overnight recovery). Drill 365'-401'(TD). - Canavan

01/09/92 Southwest Surveys ran full suite of geophysical logs. Water level at 339.42'. Designed well. Poured filler sand and pumped bottom plug. - Canavan

01/10/92 Installed 383.33' of stainless steel 4" casing, gravel pack and top plug. Bottom of well at 380.81'; screened interval 355.0'-375.53'. Top of gravel pack at 348.0'. Top of benseal plug at 337.25'. - Canavan

01/13/92 Installed filler sand above top plug. Poured first load of grout. - Canavan

01/14/92 Topped-off grout (51') and installed surface protector. - Canavan

01/15/92 Bailed well 25 times (150 gallons) for development. Set pump at 354.5. - Canavan

01/16/92 - Pumped well for development. By 01/28/92, NTU's were down to 3. Verified  
01/31/92 stable parameters by 01/31/92. Well is developed. 665 gallons pumped. - Canavan

02/03/92 Pulled pump, turned well over to Lockheed for preliminary sampling. - Canavan